

Work Order ID 110530

\*110530\*

Page 1

December-23-13 12:51:29 PM

Item ID: D3319-1

D 3319-1  
B 110530

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Item Name: Forward Wearplate

Stop \*NS2\*

Start Date: 12/23/13 Start Qty: 15.00

\*15\*

Cust Item ID:

Required Date: 1/03/14 Req'd Qty: 15.00

\*15\*

Customer:

Reference:

Approvals: Process Plan: W Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start \*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D3319	C

100 FLOW WATER JET 0.00

\*100\*

Waterjet

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg D3319

Dwg Rev: C

Prog Rev: C

2-Deburr if necessary

17 EL 13-12-27

110 QC2- Inspect parts off machine FAI/FAIB 0.00

\*110\*

QC

Memo

0.00

Quality Control

17 EL 13-12-27

120 QC8- Inspect parts - second check 0.00

\*120\*

QC

Memo

0.00

Quality Control

17 13-12-30

DAS  
9  
9-88



# Work Order ID 110530

December-23-13 12:51:29 PM

**\*110530\***

Page 2

Item ID: D3319-1 Accept **\*N900040100\*** Setup Start **\*NS1\***  
Revision ID: Stop **\*NS2\***  
Item Name: Forward Wearplate  
Start Date: 12/23/13 Start Qty: 15.00 **\*15\*** Cust Item ID:  
Required Date: 1/03/14 Req'd Qty: 15.00 **\*15\*** Customer:  
Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140		0.00							
<b>*140*</b>	NC BRAKE				DAS	17			14/01/09
Brake NC	Memo	0.00			30				
Brake NC	1- Form using DT8326 & DT8261 as per Dwg D3319Rev: <u>C</u>				9-89				
	2- Form flat on press using DT8776 block								
150		0.00							
<b>*150*</b>	QC5- Inspect part completeness to step on W/O				DAS	17			
QC	Memo	0.00			27				
Quality Control					9-89				14/1/8
160		0.00							
<b>*160*</b>	Weld per dwg A/R Hardcoat steel Batch: <u>M124434</u>					17			14-01-09 MAL
Large Fab	Large Fab								
Large Fab	Memo	0.00							
	1- Layout weld location as per Dwg D3319 using jig D3319-1T3								
	2- Weld hard surface using DT8755 per QSI 004 and Dwg D3319 Rev: _____								
	Qty Part Number Description Batch								
	A/R N/A 228/7560 Hardcoat Rod <u>M124434</u>								



# Work Order ID 110530

December-23-13 12:51:29 PM

**\*110530\***

Page 3

Item ID: D3319-1 Accept **\*N900040100\*** Setup Start **\*NS1\***  
Revision ID: Stop **\*NS2\***  
Item Name: Forward Wearplate  
Start Date: 12/23/13 Start Qty: 15.00 **\*15\*** Cust Item ID:  
Required Date: 1/03/14 Req'd Qty: 15.00 **\*15\*** Customer:  
Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170	QC10- Inspect visual per QSI004- ground welds	0.00							DAS
<b>*170*</b>						(17)	14-01-09		9
QC	Memo	0.00							9-89
Quality Control									
180	QC5- Inspect part completeness to step on W/O	0.00							DAS
<b>*180*</b>						(17)	14-01-09		9
QC	Memo	0.00							9-89
Quality Control									
190	Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3	0.00							DAS
<b>*190*</b>	<i>m 126 028.</i>					17	14-1-10		34
Powdercoat	Memo	0.00							9-89
Powder Coating	START TIME: 10:00								
	OVEN TEMPERATURE: 320								
	FINISH TIME: 10:30								



# Work Order ID 110530

December-23-13 12:51:29 PM

\*110530\*

Page 4

Item ID: D3319-1 Accept \*N1900040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: Forward Wearplate  
 Start Date: 12/23/13 Start Qty: 15.00 \*15\* Cust Item ID:  
 Required Date: 1/03/14 Req'd Qty: 15.00 \*15\* Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
200 *2000* QC Quality Control	QC3- Inspect Part Finish  Memo	0.00 0.00				17			
210 *210* Packaging Packaging	Identify as per dwg & Stock Location: <u>ST 500</u> Packaging Memo Identify on inside surface using a permanent fine point marker with the following: TCCA-PDA, Dart Aerospace Ltd. P/N: D3319-1, B/N: BXXXXX For Product Eligibility see PDA05-18 and Stock Location: _____	0.00 0.00				17 x		14-1-13.	
220 *220* QC Quality Control	QC21- Final Inspection - Work Order Release  Memo	0.00 0.00							14-01-14





# Picklist Print

December-23-13 12:51:28 PM

Page 1

Work Order ID: 110530

Parent Item: D3319-1

Parent Item Name: Forward Wearplate

Start Date: 12/23/13

Required Date: 1/03/14

Start Qty: 15.00

Required Qty: 15.00

Comments: IPP: B05.10.14Added step 9, dwg rev B KJ/EC  
IPP Rev:C Now on Waterjet 06-10-26 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M1010S18GA 1010/1025 SHEET .048		Purchased	No			100	sf	156.9709	0.628	10		EL 13-12-27	

Location

Loc Qty

Loc Code

MAT019

156.9709

116268

0.970948

117806

18

124428

40

m127805

98

71

5.3



<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	110530
<b>Description:</b> Wearplate		<b>Part Number:</b>	D3319-1
<b>Inspection Dwg:</b> D3319	<b>Rev:</b> C	<b>Page 1 of 1</b>	

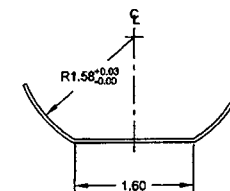
### FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
4.98	+/-0.030	4.973	✓		V JHmos	
1.600	+/-0.010	1.6	✓			
2.660	+/-0.010	2.665	✓			
3.190	+/-0.010	3.19	✓			
3.563	+/-0.010	3.563	✓			
4.71	+/-0.030	4.705	✓			
0.60	+/-0.030	0.599	✓			
10.576	+/-0.010	10.576	✓		+	
11.942	+/-0.010	11.94	✓		+	
18.09	+/-0.030	18.09	✓		1 A 07	
Ø0.316 x 0.546	+0.006/-0.001 x +/-0.010	0.317 x 0.549				
Ø0.316 x 0.670	+0.006/-0.001 x +/-0.010	0.318 x 0.678	✓			
Ø0.190	+0.005/-0.001	0.195	✓			
3.815	+/-0.010	3.815	✓			
16.100	+/-0.010	16.1	✓			

<b>Measured by:</b>	EZ	<b>Audited by:</b>	DAS 9 9-89	<b>Preliminary Approval:</b>	
<b>Date:</b>	13-12-27	<b>Date:</b>	13-12-30	<b>Date:</b>	

Rev	Date	Change	Revised by	Approved
A	07.05.31	New Issue	KJ/JLM	
B	12.05.15	Dimensions updated per Dwg Rev C	KJ	

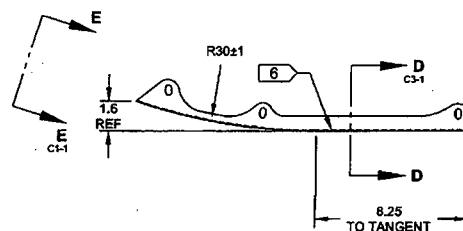




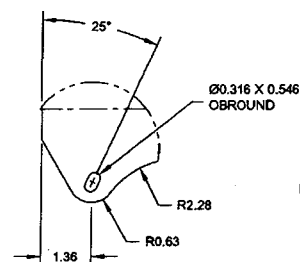
**SECTION D-D** B6-  
**SCALE 4X**

**SECTION E-E** BB  
SCALE 4X

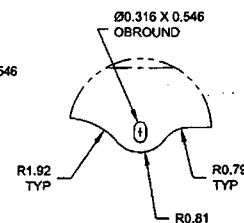
### D3319-1F FLAT PATTERN



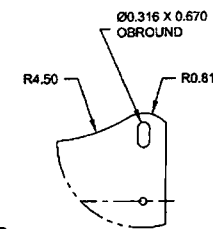
**D3319-1 BENDING DETAIL**  
MAKE FROM D3319-1F



**DETAIL A**  
SCALE 4X C8-1



**DETAIL B** C8.  
**SCALE 4X**



**DETAIL C**  
SCALE 4X

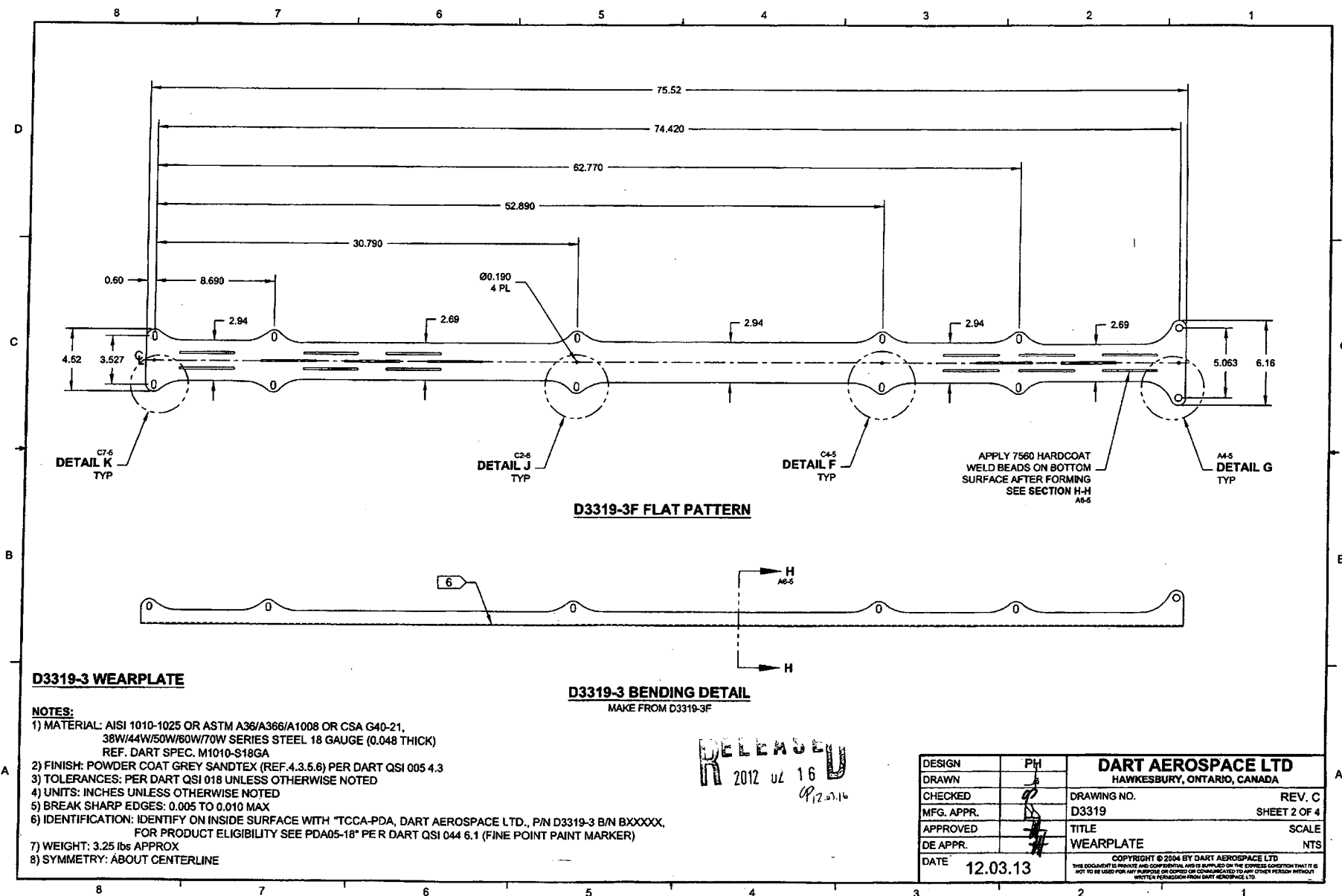
### D3319-1 WEARPLATE

**NOTES:**

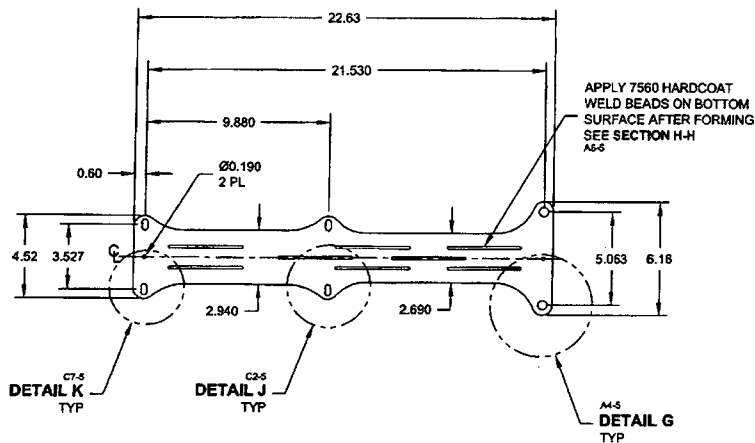
- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21,  
38W/44W/50W/60W/70W SERIES STEEL 18 GAUGE (0.048 THICK)  
REF. DART SPEC. M1010-S18GA
- 2) FINISH: POWDER COAT GREY SANTEX (REF. 4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY ON INSIDE SURFACE WITH "TCCA-PDA, DART AEROSPACE LTD., P/N D3319-1 B/N BXXXXX,  
FOR PRODUCT ELIGIBILITY SEE PDA05-18" PER DART QSI 044 6.1 (FINE POINT PAINT MARKER)
- 7) WEIGHT: 0.90 lbs APPROX
- 8) SYMMETRY: ABOUT CENTERLINE

RELEASE  
2012-03-16  
PER ECN 12-546 0P12-031

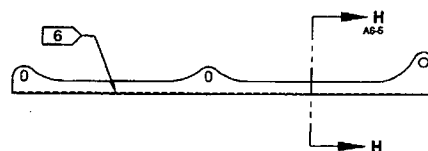
C	UPDATE TO CURRENT STANDARDS IAW QSI 043; CLOSED APF MOST HOLE ON -3/-5-7 (REF DETAIL G). SEE NCR12-547.	MB	12.03.13
B	WIDEN HOLES, REDUCE WIDTH ON -3/-5-7	PH	05.06.06
A	NEW ISSUE	PH	04.09.24
REV.	DESCRIPTION	BY	DATE
DESIGN	PH	<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. 0
MFG. APPR.		D3319	SHEET 1 OF 1
APPROVED		TITLE	SCALE
DE APPR.		WEARPLATE	NT
DATE	12.03.13	COPYRIGHT © 2004 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PROVIDED UNCLASSIFIED, AND IS SUBJECT TO THE SUPPLIER CONSENT THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMPILED TO ANY OTHER PUBLICATION WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD.</small>	



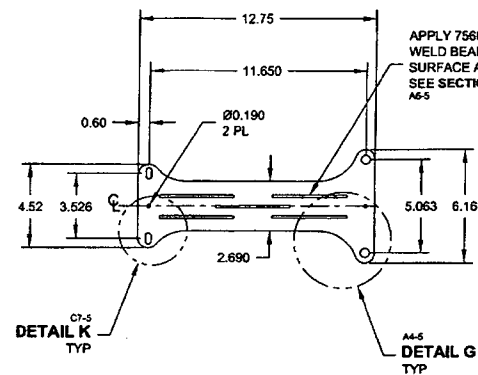




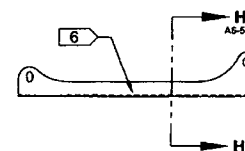
**D3319-5F FLAT PATTERN**



**D3319-5 BENDING DETAIL**  
MAKE FROM D3319-5F



**D3319-7F FLAT PATTERN**



**D3319-7 BENDING DETAIL**  
MAKE FROM D3319-7F

**D3319-5/-7 WEARPLATE**

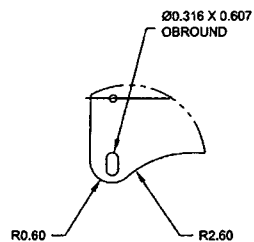
**NOTES:**

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W SERIES STEEL 18 GAUGE (0.048 THICK) REF. DART SPEC. M1010-S18GA
- 2) FINISH: POWDER COAT GREY SANDEXT (REF. 4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY ON INSIDE SURFACE WITH "TCCA-PDA, DART AEROSPACE LTD., P/N D3319-X B/N BXXXXX, FOR PRODUCT ELIGIBILITY SEE PDA05-18" PER DART QSI 046 5.1 (PERMANENT MARKER)
- 7) WEIGHT: D3319-5 = 1.05 lbs APPROX; D3319-7 = 0.60 lbs APPROX
- 8) SYMMETRY: ABOUT CENTERLINE

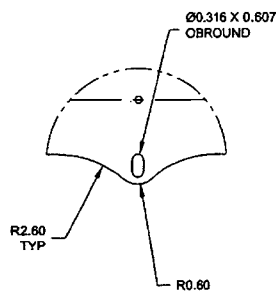
RELEASED  
2012-02-16  
P12.0316

DESIGN	PH	<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3319	SHEET 3 OF 4
APPROVED		TITLE	SCALE
DE APPR.		WEARPLATE	NTS
DATE	12.03.13	COPYRIGHT © 2004 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

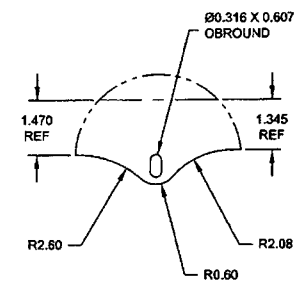




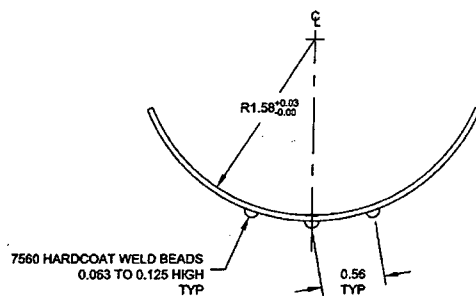
**DETAIL K**  
SCALE 2X  
B8-2  
C4-3  
C6-3



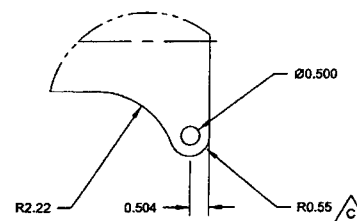
**DETAIL F**  
SCALE 2X  
B3-2



**DETAIL J**  
SCALE 2X  
B8-2  
C7-3






**SECTION H-H**  
SCALE 4X  
B4-2  
B3-3  
B6-3



**DETAIL G**  
SCALE 2X  
B8-2  
C2-3  
C6-3

RELEASED  
2012-02-16  
412.03.16

DESIGN	PH	<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3319	SHEET 4 OF 4
APPROVED		TITLE	SCALE
DE APPR.		WEARPLATE	NTS
DATE	12.03.13	<small>COPYRIGHT © 2004 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS LOANED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	